

Serial No. 10/760,454
Amendment dated June 22, 2005
Reply to Office Action of March 4, 2005

Docket No. P-0645

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A front substrate of a plasma display panel (PDP) including a colorant-added upper dielectric layer, wherein the colorant is Co_2O_3 .
2. (Original) The front substrate of claim 1, wherein the colorant controls a light transmittance.
3. (Canceled)
4. (Previously Presented) The front substrate of claim 1, wherein Co_2O_3 is added in the range of 0~10 wt %.
- 5 - 34 (Canceled)
35. (Previously Presented) The front substrate of claim 1, wherein the colorant is a material for controlling a light transmittance.

36. (Previously Presented) The front substrate of claim 1, wherein the upper dielectric layer comprises a glass powder, wherein the glass powder is one of PbO-B₂O₃-SiO₂-Al₂O₃-RO group, P₂O₅-B₂O₃-ZnO group, ZnO-B₂O₃-RO group, and PbO-B₂O₃-SiO₂-Al₂O₃-BaO group.

37. (Previously Presented) The front substrate of claim 36, wherein the upper dielectric layer is formed by mixing 65wt% of PbO, 10wt% of B₂O₃, 20wt% of SiO₂ and Al₂O₃ and 5wt% of RO.

38. (Previously Presented) The front substrate of 37, wherein the RO is one of BaO, SrO, La₂O, Bi₂O₃, MgO and ZnO.

39. (Previously Presented) The front substrate of claim 36, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P₂O₅, 3.3wt%~22.0wt% of B₂O₃ and 36.1wt%~44.7wt% of ZnO.

40. (Previously Presented) The front substrate of claim 36, wherein the upper dielectric layer is formed by mixing 34.0wt% of ZnO, 29wt% of B₂O₃ and 37.0wt% of RO, wherein the RO is one of BaO, SrO, La₂O, Bi₂O₃, MgO and Zno.

41. (Currently Amended) A dielectric composition for ~~a~~an upper dielectric layer in a plasma display panel (PDP) comprising:

a glass powder, wherein the glass powder includes P_2O_5 - B_2O_3 -ZnO group; and
a colorant, wherein the colorant is Co_2O_3 .

42. (Previously Presented) The dielectric composition of claim 41, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P_2O_5 , 3.3wt%~22.0wt% of B_2O_3 and 36.1wt%~44.7wt% of ZnO.

43. (Canceled)

44. (Currently Amended) The dielectric composition of claim ~~43~~41, wherein ~~Nd_2O_3 is added in the range of 0~40 wt %, and at least one of Nd_2O_3 , CoO , Co_3O_4 and Co_2O_3 is added in the range of 0~10 wt %.~~

45. (Currently Amended) ~~A~~An upper dielectric layer in a plasma display panel (PDP) comprising:

a glass powder, wherein the glass powder is one of PbO - B_2O_3 - SiO_2 - Al_2O_3 -RO group, P_2O_5 - B_2O_3 -ZnO group, and ZnO - B_2O_3 -RO group, ~~and PbO - B_2O_3 - SiO_2 - Al_2O_3 -BaO~~

group; and

a colorant, wherein the colorant is ~~at least one of Nd₂O₃, CoO, Co₃O₄ and Co₂O₃.~~

46. (Currently Amended) The upper dielectric layer of claim 45, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P₂O₅, 3.3wt%~22.0wt% of B₂O₃ and 36.1wt%~44.7wt% of ZnO.

47. (Currently Amended) The upper dielectric layer of claim 45, wherein Co₂O₃ is added in the range of 0~10wt%.

48. (Currently Amended) A plasma display panel comprising a front substrate, and an upper dielectric layer on the front substrate, the upper dielectric layer comprising:

a glass powder, wherein the glass powder is ~~P₂O₃-B₂O₃-ZnO~~P₂O₅-B₂O₃-ZnO
group; and

a colorant, wherein the colorant is ~~at least one of Nd₂O₃, CoO, Co₃O₄ and Co₂O₃.~~

49. (Previously Presented) The plasma display panel of claim 48, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P₂O₅, 3.3wt%~22.0wt% of B₂O₃ and 36.1wt%~44.7wt% of ZnO.

50. (Previously Presented) The plasma display panel of claim 48, wherein Co_2O_3 is added in the range of 0~10wt%.

51. (Currently Amended) A method for fabricating a front substrate of a plasma display panel (PDP) comprising:

forming glass powder with a colorant added therein at a prescribed rate, wherein the colorant is Co_2O_3 ;

forming a dielectric paste by mixing the glass powder, a binder and a solvent, and wherein the glass powder is P_2O_5 - B_2O_3 - ZnO group;

coating the dielectric paste at the entire surface of ~~the~~ an upper glass substrate with a transparent electrode and a bus electrode formed thereon to form a dielectric paste layer; and

~~firing-heating~~ the dielectric paste layer to form an upper dielectric layer of the front substrate, wherein the upper dielectric layer is formed by mixing 41.9 wt % ~ 52.0 wt % of P_2O_5 , 3.3 wt % ~ 22.0 wt % of B_2O_3 and 36.1 wt % ~ 44.7 wt % of ZnO .

52. (Canceled)

53. (Previously Presented) The method of claim 51, wherein Co_2O_3 is added in the range of 0~10wt%.

54. (New) A plasma display panel (PDP) comprising a front substrate, a back substrate, and a dielectric formed on the front substrate and including Co_2O_3 .

55. (New) The plasma display panel (PDP) of claim 54, wherein the Co_2O_3 is a colorant which controls a light transmittance.

56. (New) The plasma display panel (PDP) of claim 54, wherein the Co_2O_3 is added in the range of 0~10 wt % of the dielectric.